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L3: Entry 1 of 1

File: USPT

Jun 19, 2001

DOCUMENT-IDENTIFIER: US 6248874 B1

TITLE: DNA molecules encoding bacterial lysine 2,3-aminomutase

Brief Summary Text (45):

4. Isolation of Cloned Lysine 2,3-Aminomutase and Production of Anti-Lysine 2,3-Aminomutase Antibodies

Brief Summary Text (58):

Additional variations in purification are described by Petrovich et al., J. Biol. Chem. 226:7656 (1991), and can be devised by those of skill in the art. For example, anti-lysine 2,3-aminomutase antibodies, obtained as described below, can be used to isolate large quantities of lysine 2,3-aminomutase by immunoaffinity purification.

Brief Summary Text (64):

(b) Preparation of Anti-Lysine 2,3-Aminomutase Antibodies and Fragments Thereof

Brief Summary Text (66):

Alternatively, an anti-lysine 2,3-aminomutase antibody can be derived from a rodent monoclonal antibody (MAb). Rodent monoclonal antibodies to specific antigens may be obtained by methods known to those skilled in the art. See, for example, Kohler et al., Nature 256:495 (1975), and Coligan et al. (eds.), CURRENT PROTOCOLS IN IMMUNOLOGY, VOL. 1, pages 2.5.1-2.6.7 (John Wiley & Sons 1991) ["Coligan"]. Also see, Picksley et al., "Production of monoclonal antibodies against proteins expressed in E. coli," in DNA CLONING 2: EXPRESSION SYSTEMS, 2nd Edition, Glover et al. (eds.), pages 93-122 (Oxford University Press 1995).

Brief Summary Text (69):

For particular uses, it may be desirable to prepare fragments of anti-lysine 2,3-aminomutase antibodies. Such antibody fragments can be obtained, for example, by proteolytic hydrolysis of the antibody. Antibody fragments can be obtained by pepsin or papain digestion of whole antibodies by conventional methods. As an illustration, antibody fragments can be produced by enzymatic cleavage of antibodies with pepsin to provide a 5S fragment denoted F(ab').sub.2. This fragment can be further cleaved using a thiol reducing agent to produce 3.5S Fab' monovalent fragments. Optionally, the cleavage reaction can be performed using a blocking group for the sulphydryl groups that result from cleavage of disulfide linkages. As an alternative, an enzymatic cleavage using pepsin produces two monovalent Fab fragments and an Fc fragment directly. These methods are described, for example, by Goldenberg, U.S. Pat. Nos. 4,036,945 and 4,331,647 and references contained therein. Also, see Nisonoff et al., Arch Biochem. Biophys. 89:230 (1960); Porter, Biochem. J. 73:119 (1959), Edelman et al., in METHODS IN ENZYMOLOGY VOL. 1, page 422 (Academic Press 1967), and Coligan at pages 2.8.1-2.8.10 and 2.10.-2.10.4.

Brief Summary Text (87):

Anti-lysine 2,3-aminomutase antibodies can also be used to isolate DNA sequences that encode enzymes from cDNA libraries. For example, the antibodies can be used to screen .lambda.gt11 expression libraries, or the antibodies can be used for

immunoscreening following hybrid selection and translation. See, for example, Ausubel et al. (eds.), SHORT PROTOCOLS IN MOLECULAR BIOLOGY, 3rd Edition, pages 6-12 to 6-16 (John Wiley & Sons, Inc. 1995); and Margolis et al., "Screening .lambda. expression libraries with antibody and protein probes," in DNA CLONING 2: EXPRESSION SYSTEMS, 2nd Edition, Glover et al. (eds.), pages 1-14 (Oxford University Press 1995).

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END OF SEARCH HISTORY

20040152179. 02 Mar 04. 05 Aug 04. Receptor-mediated uptake of an extracellular Bcl-xL fusion protein inhibits apoptosis. Youle, Richard J., et al. 435/184; C12N009/99.

- 
2. 20030202989. 08 Apr 99. 30 Oct 03. USE OF TOXIN PEPTIDES AND/OR AFFINITY HANDLES FOR DELIVERING COMPOUNDS INTO CELLS. COLLIER, R. JOHN, et al. 424/236.1; 435/252.3 435/320.1 435/69.7 514/12 530/350 536/23.7 A61K039/02 C12P021/04 C12N001/21 C07K014/195 C07H021/04 C12N015/74.
- 
3. 20030165563. 20 Dec 02. 04 Sep 03. Directly compressible formulations of azithromycin. Murphy, Brendan, et al. 424/465; 514/28 A61K031/7052 A61K009/20.
- 
4. 20030108556. 07 Jun 02. 12 Jun 03. Therapeutic uses of polyvalent compositions in infectious diseases. Mekalanos, John J., et al. 424/184.1; A61K039/00 A61K039/38.
- 
5. 20030095961. 01 Jul 02. 22 May 03. Composition and method for treating disease by increasing activated alpha2 macroglobulin in the blood and extravascular tissue. Houston, Devin, et al. 424/94.65; 424/94.63 A61K038/48.
- 
6. 20030050447. 20 Aug 02. 13 Mar 03. Multi-mutant diphtheria toxin vaccines. Collier, R. John. 530/350; 424/190.1 435/252.3 435/320.1 435/69.3 536/23.7 A61K039/02 C07K014/195 C07H021/04 C12P021/02 C12N001/21 C12N015/74.
- 
7. 20020169287. 31 Dec 01. 14 Nov 02. Novel genes and their use in the modulation of obesity, diabetes and energy imbalance. Collier, Gregory, et al. 530/350; 435/320.1 435/325 435/69.1 536/23.5 C07K014/435 C07H021/04 C12P021/02 C12N005/06.
- 
8. 20020039588. 04 May 01. 04 Apr 02. Compounds and methods for the treatment and prevention of bacterial infection. Collier, R. John, et al. 424/246.1; 424/236.1 435/221 A61K039/07 C12N009/54.
- 
9. 6737511. 15 Aug 00; 18 May 04. Receptor-mediated uptake of an extracellular BCL-xL fusion protein inhibits apoptosis. Youle; Richard J., et al. 530/350; 424/134.1 424/138.1 424/141.1 424/236.1 424/238.1 435/69.1 435/69.5 435/69.7 435/71.3 530/351 530/387.3 530/387.7 530/388.1 530/388.8. C07K014/00.
- 
10. 6455673. 16 Feb 99; 24 Sep 02. Multi-mutant diphtheria toxin vaccines. Collier; R. John. 530/350; 424/136.1 424/143.1 424/150.1 424/178.1 424/183.1 424/184.1 424/185.1 424/203.1 424/236.1 424/238.1 424/239.1 424/245.1 435/29 435/69.1 435/69.7. C07K001/00 A61K039/00 A61K039/08 C21P021/04.
- 
11. 5994079. 06 Feb 98; 30 Nov 99. Direct detection of RNA mediated by reverse transcriptase lacking RNase H function. De La Rosa; Abel, et al. 435/6; 435/91.1 436/501. C12Q001/68.
- 
12. 5985548. 13 Feb 95; 16 Nov 99. Amplification of assay reporters by nucleic acid replication. Collier; David Nash, et al. 435/6; 435/5 435/7.1 435/7.2 435/7.9 435/91.2 536/24.3 536/24.32 536/24.33 536/26.6. C12Q001/68 C12Q001/70 C07H021/04 G01N033/53.
- 
13. 5917017. 08 Jun 94; 29 Jun 99. Diphtheria toxin vaccines bearing a mutated R domain. Collier; R. John, et al. 530/350; 424/183.1 424/184.1 424/185.1 424/203.1 424/236.1 424/239.1 424/245.1 435/29 435/69.1 435/69.7. C07K001/00 A61K039/00 A61K039/08 C12P021/04.
- 
14. 5843711. 02 Nov 95; 01 Dec 98. Diphtheria toxin receptor-binding region. Collier; R. John, et

al. 435/69.1; 435/252.3 435/320.1 435/69.3 514/2 536/22.1 536/23.1 536/23.2 536/23.4 536/23.7. C12N015/00.

- 15. 5733726. 07 Jun 95; 31 Mar 98. Cytotoxicity-based genetic selection system (TOXSEL). Fu; Haian, et al. 435/6; 435/254.2 435/320.1. C12Q001/68 C12N001/19 C12N015/79.
- 16. 5601827. 23 May 95; 11 Feb 97. Diphtheria toxin vaccines. Collier; R. John, et al. 424/190.1; 424/192.1 424/238.1 424/832 424/93.2 435/194 435/252.3 435/252.31 435/252.32 435/252.33 435/254.11 435/320.1 435/69.1 435/69.7. A61K039/05 A61K048/00 C12N015/31.
- 17. 5505917. 04 Oct 94; 09 Apr 96. Solar heat exchanger and concentric feedback tube system for disinfecting water. Collier, Jr.; Robert K.. 422/307; 126/684 126/694 126/696 210/183. B01B001/00.
- 18. 5215969. 09 Dec 91; 01 Jun 93. Dopaminergic neurotrophic factor for treatment of Parkinson's disease. Springer; Joe E., et al. 514/21; 514/2. A61K037/02.
- 19. 5182302. 28 Jun 91; 26 Jan 93. Method for enhancing growth of mammary parenchyma using a prostaglandin. Collier; Robert J., et al. 514/573; 424/535 424/572. A61K031/19 A61K031/557.
- 20. 5130300. 14 Mar 90; 14 Jul 92. Method for enhancing growth of mammary parenchyma. Collier; Robert J., et al. 514/12; 514/2 514/21. A61K037/24 A61K037/36.
- 21. 5130299. 28 Jun 91; 14 Jul 92. Method for enhancing growth of mammary parenchyma. Collier; Robert J., et al. 514/12; 514/2 514/21. A61K037/24 A61K037/36.
- 22. 5059586. 02 Sep 87; 22 Oct 91. Method for enhancing growth of mammary parenchyma. Collier; Robert J., et al. 514/12; 514/2 514/21. A61K037/24 A61K037/36.
- 23. 4709017. 07 Jun 85; 24 Nov 87. Modified toxic vaccines. Collier; R. John, et al. 530/350;. C07K013/00.
- 24. 4129648. 21 Nov 77; 12 Dec 78. Method for reducing endogenous prostaglandin synthesis. Collier; Harry O. J., et al. 530/392; 514/21 514/825 514/826 530/831. A61K035/14 A61K035/16 A61K037/02.
- 25. WO009942473A1. 18 Feb 99. 26 Aug 99. INHIBITION OF TOXIN TRANSLOCATION. COLLIER, R JOHN, et al. C07K001/00; C12Q001/48 C12P021/06 C12N013/00.
- 26. WO009723236A1. 13 Dec 96. 03 Jul 97. USE OF TOXIN PEPTIDES AND/OR AFFINITY HANDLES FOR DELIVERING COMPOUNDS INTO CELLS. COLLIER, R JOHN, et al. A61K038/07; A61K039/00 A61K039/02 A61K039/04 A61K039/112 A61K039/12 A61K039/245 A61K039/29 A61K048/00 C07K014/00 C07K014/05 C07K014/19 C07K009/00 C07K014/435 C12N005/10 C12N015/00 C12N015/09 C12N015/12.
- 27. WO009640721A1. 03 Jun 96. 19 Dec 96. A CYTOTOXICITY-BASED GENETIC SELECTION SYSTEM (TOXSEL). FU, HAIAN, et al. C07H021/04; C12N005/10 C12N001/19 C12N015/09 C12Q001/02 C12Q001/68.
- 28. WO009533481A1. 31 May 95. 14 Dec 95. DIPHTHERIA TOXIN VACCINES BEARING A MUTATED R DOMAIN. COLLIER, R JOHN, et al. A61K039/00; A61K039/38 A61K039/40 A61K039/395 A61K039/44 A61K039/42 C07K001/00 C07K014/00 C07K017/00 C12P021/06

C12Q001/02.

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- 29. WO009325210A1. 17 May 93. 23 Dec 93. DIPHTHERIA TOXIN VACCINES. COLLIER, R JOHN, et al. A61K031/735; A61K037/00 A61K037/52 C07H021/04 C12N001/00 C12N001/21 C12N005/10 C12N009/10 C12N015/31 C12N015/54 C12P021/02.
- 30. WO009321769A1. 03 May 93. 11 Nov 93. DIPHTHERIA TOXIN RECEPTOR-BINDING REGION. COLLIER, R JOHN, et al. A01N037/18; A01N063/00 A61K037/00 A61K039/40 A61K049/00 C07H017/00 C07H019/00 C07H021/00 C07K003/00 C07K013/00 C07K015/00 C07K017/00 C12N001/20 C12N005/00 C12P021/06.
- 31. WO2003053416A. Dry blend useful for forming azithromycin tablets by direct compression for the treatment of bacterial and protozoal infection comprises non-dihydrate azithromycin. COLLIER, S W, et al. A61K009/20 A61K031/7052 A61K031/70522.
- 32. US20030108556A. Treatment of mammal suffering from or susceptible to infectious agent involves administering polymer having polymerized dextran units or polymerized ethylene glycol units linked to several therapeutic agents. COLLIER, R J, et al. A61K039/00 A61K039/38.
- 33. WO 200246228A. Novel isolated polypeptide useful for identifying agent that prevents or reduces effect of anthrax toxin on host cell, for treating human or non-human animal suffering from anthrax. BRADLEY, K A, et al. C07K014/705 C12N005/10 C12N015/12 C12N015/62 C12P019/34 C12P021/02 G01N033/50.
- 34. US20020039588A. Protecting humans against anthrax using mutant B groups (anthrax protective antigens) of the pore-forming binary A-B toxin of *Bacillus anthracis*. COLLIER, R J, et al. A61B000/00 A61K038/00 A61K039/00 A61K039/02 A61K039/07 A61K039/08 A61K039/395 A61P031/04 C07K000/00 C07K001/00 C07K014/32 C07K016/12 C12N009/54 C12N015/01.
- 35. WO 200112661A. Novel fusion protein for modifying apoptosis in target cell and reducing apoptosis after transient ischemic neuronal injury, has two domains which targets protein to a cell and modifies apoptotic response of cell. COLLIER, R J, et al. C07K014/00 C12N009/99.
- 36. US 6455673B. New multiple-mutant form of diphtheria toxin, useful in vaccines with reduced toxicity and likelihood of reversion, contain mutations in at least the C and T domains. COLLIER, R J. A61K039/00 A61K039/02 A61K039/05 A61K039/08 A61K047/48 A61P037/04 C07H021/04 C07K001/00 C07K014/195 C07K014/34 C07K019/00 C12N001/15 C12N001/19 C12N001/20 C12N001/21 C12N005/10 C12N015/09 C12N015/74 C12P021/02 C12P021/04.
- 37. WO 9942473A. New mutant pore-forming toxins - useful for treating a patient exposed to a pore-forming toxin or bacteria producing the toxin. BENSON, E L, et al. C07K001/00 C12N013/00 C12P021/06 C12Q001/48.
- 38. WO 9814768A. Transdermal collection monitoring device - for taking sample of substances that diffuse through the skin, used to monitor blood levels of therapeutic or illicit drugs, toxins or industrial chemicals. BIES, R R, et al. G01N000/00 G01N033/50.
- 39. WO 9723236A. Introducing therapeutic proteins, especially antigens, into cells - using toxin molecules and/or polycationic handles for delivery. BALLARD, J D, et al. A61K038/00 A61K038/07 A61K039/00 A61K039/02 A61K039/04 A61K039/112 A61K039/12 A61K039/13 A61K039/165 A61K039/20 A61K039/205 A61K039/21 A61K039/245 A61K039/25 A61K039/285 A61K039/29

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C12N015/00 C12N015/09 C12N015/12 C12N015/74 C12P021/04.

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"PATNO\_JP411506608W" 40. JP 11506608W. New genetic selection system - by selection for disruption of protein-protein interaction which activates toxin to cause cell death. COLLIER, R J, et al. A61K045/00 C07H021/04 C12N001/19 C12N005/10 C12N015/09 C12N015/79 C12P021/02 C12Q001/02 C12Q001/68.

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41. US 5917017A. Diphtheria toxin R domain mutants and transformed host cells - used as vaccines to immunise mammals (esp. humans) against *Corynebacterium diphtheriae* infection.. CHOE, S, et al. A61K039/00 A61K039/05 A61K039/08 A61K039/38 A61K039/395 A61K039/40 A61K039/42 A61K039/44 C07H021/04 C07K001/00 C07K014/00 C07K014/255 C07K016/12 C07K017/00 C12N001/21 C12N015/09 C12P021/02 C12P021/04 C12P021/06 C12P021/08 C12Q001/02 C12N001/21 C12R001:07 C12N001/21 C12R001:42 C12N001/21 C12R001:63 C12N001/21 C12R001:01 C12N001/21 C12R001:16 C12N001/21 C12R001:19.

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42. EP 652758B. New DNA encoding diphtheria toxin deletion mutants - with no toxicity and low risk of reversion, and derived toxoids and transformed cells, useful in vaccines. COLLIER, R J, et al. A61K031/735 A61K037/00 A61K037/02 A61K037/52 A61K038/00 A61K038/45 A61K039/05 A61K039/116 A61K039/39 A61K048/00 C07H021/04 C07K013/00 C07K014/34 C07K019/00 C12N001/00 C12N001/21 C12N005/10 C12N009/10 C12N015/09 C12N015/31 C12N015/54 C12N015/62 C12P021/02 C12N001/21 C12R001:19 C12P021/02 C12R001:19.

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43. EP 643559B. Polypeptide(s) corresp. to diphtheria toxin receptor binding region - used for treating diphtheria or immunising against diphtheria toxin. CHOE, S, et al. A01N037/18 A01N063/00 A61K037/00 A61K038/00 A61K039/05 A61K039/40 A61K049/00 A61P031/04 C07H017/00 C07H019/00 C07H021/00 C07K001/02 C07K001/12 C07K003/00 C07K013/00 C07K014/34 C07K015/00 C07K017/00 C07K019/00 C12N001/20 C12N001/21 C12N005/00 C12N015/00 C12N015/09 C12P021/02 C12P021/06 C12N001/21 C12R001:19 C12P021/02 C12R001:19.

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44. US 4709017A. Modified diphtheria toxin fragment-A and vaccine - has no ADP-ribose transfer activity and is immunologically cross-reactive with natural fragment-A. CARROLL, S F, et al. C07K013/00.

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45. EP 44167A. Target-specific cytotoxic agents - comprising antibody linked to enzymatically active toxin fragment. COLLIER, R J, et al. A61K035/74 A61K039/39.

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L8: Entry 1 of 1

File: USPT

Jul 30, 2002

DOCUMENT-IDENTIFIER: US 6426231 B1

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TITLE: Analyte sensing mediated by adapter/carrier molecules

Detailed Description Text (127):

The following proteins were used in Examples 9-11. The mutant .alpha.HL genes M113N, M113N/L135N and E111N/K147N were prepared by cassette mutagenesis in the plasmid .alpha.HL-RL2 (Cheley, S., et al., Protein Sci., 8:1257-1267, 1999). These constructs contain the following additional changes over WT-.alpha.HL: Lys-8->Ala, Val-124->Leu, Gly-130->Ser, Asn-139->Gln, Ile-142->Leu. .alpha.HL polypeptides with these mutations behave similarly to WT-.alpha.HL in hemolysis assays and in planar bilayer recordings, at the salt concentrations used herein (Cheley, S., et al., Protein Sci., 8:1257-1267, 1999). .alpha.HL-CH1 is one of several chimeric proteins that feature a transmembrane domain derived from the protective antigen of anthrax toxin fused to the cap domain of .alpha.HL (laboratories of R. J. Collier and H. B., in preparation). Residues 119-140 inclusive of .alpha.HL (21 residues) were replaced with 22 residues 302-323 from protective antigen. The register of the .beta. strands in the transmembrane domain is that given by Petosa and colleagues (Petosa, C., et al., Nature, 385:833-838, 1997).

Detailed Description Text (153):

Because the increase in anion selectivity observed when .beta.CD was used as an adapter for the WT-.alpha.HL pore was modest, in this example it is determined whether .beta.CD would produce anion selectivity in a cation-selective pore. To this end, .alpha.HL-CH1, a chimeric protein that features a transmembrane domain derived from the protective antigen of anthrax toxin fused to the cap domain of .alpha.HL, was examined. The net charge per subunit in the transmembrane barrel of homoheptameric .alpha.HL-CH1 is -21, compared with -7 in the WT-.alpha.HL barrel, and it is cation selective. The altered barrel in .alpha.HL-CH1 retains the site near Met-113, where cyclodextrins are believed to bind (Gu, L.-Q., et al., Nature, 398:686-690, 1999). Once again, permeability ratios were determined from V.sub.r values (FIGS. 9a, b).

Other Reference Publication (30):

Petosa, et al., "Crystal structure of the anthrax toxin protective antigen," Nature, vol. 385, pp. 833-838 (Feb. 27, 1997).

**CLAIMS:**

2. A system for sensing a plurality of different analytes comprising: at least one sensor element, each sensor element comprising a pore and having a receptor site; and a plurality of different host molecules, wherein the host molecules each interact with a receptor site of a sensor element and at least one of the different analytes as an adapter between the analyte and the receptor site so that the sensor element directly produces a detectable signal.

5. A system for sensing a plurality of different analytes comprising: a plurality of different sensor elements, each sensor element comprising a pore and having a

receptor site; and a plurality of different host molecules, wherein the host molecules each interact with a receptor site of one of the plurality of different sensor elements and one of the different analytes as a carrier to deliver the analyte to the receptor site so that the sensor element directly produces a detectable signal.

21. The system of claim 20 wherein the protein is selected from the group consisting of a transmembrane pore, an enzyme, an antibody and a receptor.

22. The system of any one of claim 1 or 4 wherein the sensor element comprises a pore.

23. The system of claim 22 wherein the sensor element comprises a genetically engineered transmembrane protein pore.

24. The system of claim 22 wherein the sensor element is an .alpha.-Hemolysin (.alpha.HL) pore.

25. The system of claim 24 wherein the sensor element is a wild-type .alpha.-Hemolysin (.alpha.HL) pore.

26. The system of claim 24 wherein the sensor element is a genetically engineered or mutant .alpha.-Hemolysin (.alpha.HL) pore.

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